IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A cosmetic preparation comprising a cationic polymer which is produced by the process comprising: ~~The use of cationic polymers obtainable by polymerization of~~

polymerizing in a polymerization vessel

from 3 to 30% by weight of at least one quaternary ~~nitrogen-containing~~ nitrogen-comprising free-radically polymerizable monomer (a1) and/or a direct preproduct (a2) thereof

in the presence of

from 70 to 97% by weight of at least one ~~polyether-containing~~ polyether-comprising compound (b), ~~(b) and optionally~~

from 0 to 15% by weight of one or more ~~further~~ first additional free-radically polymerizable monomer ~~monomers~~ (c) ~~with~~ having a solubility in water above 60 g/l at 25°C and ~~optionally~~

from 0 to 15% by weight of one or more ~~further~~ second additional free-radically polymerizable monomer ~~monomers~~ (d) ~~with~~ having a solubility in water of less than 60 g/l at 25°C

~~where~~ wherein

the water content in the reaction mixture during the polymerization is less than 20% by weight; ~~weight, and where, in the case of the use of a~~

if the polymerization vessel comprises the preproduct (a2), ~~this~~ said preproduct (a2) is converted at least partially into a compound ~~containing~~ comprising quaternary nitrogen (a2') subsequently to or during said polymerizing; ~~the polymerization, and where~~

the molar ratio of the sum of ~~the monomers~~ the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1), the compound comprising quaternary

nitrogen (a2') and the one or more first additional free-radically polymerizable monomer (c) to the sum of ~~the monomers~~ the one or more second additional free-radically polymeriable monomer (d) is at least 2 to 1; and ~~to 1, and where~~

the percentages by weight of the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1) and/or a direct preproduct (a2) thereof, the at least one polyether-comprising compound (b), the one or more first additional free-radically polymerizable monomer (c) and the one or more second additional free-radically polymerizable monomer (d) ~~the individual components a1 and/or a2, b and optionally c and d~~ add up in each case to 100% by weight. ~~weight in cosmetic preparations.~~

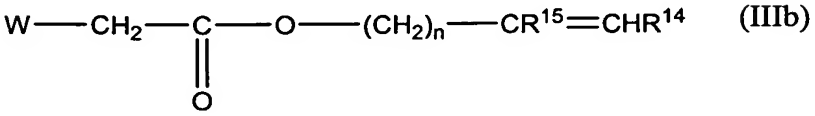
Claim 2 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, ~~where~~ wherein the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1) and/or the compound comprising quaternary nitrogen (a2') is ~~chosen~~ selected from the group consisting of quaternary vinylamines, N,N,N-trialkylaminoalkyl acrylates and methacrylates, N,N,N-trialkylaminoalkylacrylamides and -methacrylamides, 3-alkyl-1-vinylimidazoles, 3-aryl-1-vinylimidazoles, quaternary vinylpyridines and quaternary diallylamines, ~~and~~ the salts thereof and mixtures thereof.

Claim 3 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, ~~claim 1 or 2, where~~ wherein the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1) and/or the compound comprising quaternary nitrogen (a2') is ~~chosen~~ selected from the group consisting of

a) quaternary vinylamines ~~of the formulae~~ represented by formula (IIIa), ~~or (IIIb)~~

(IIIa)

quaternary vinylamines represented by formula (IIIb),

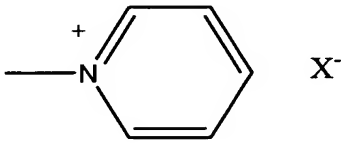


(IIIb)

wherein ~~where~~

R^{14} and R^{15} are independently selected ~~R^{15}, independently of one another, are chosen~~ from the group consisting of hydrogen, C_1-C_8 linear- or branched-chain alkyl, methoxy, ethoxy, 2-hydroxyethoxy, 2-methoxyethoxy and 2-ethoxyethyl, ~~and~~

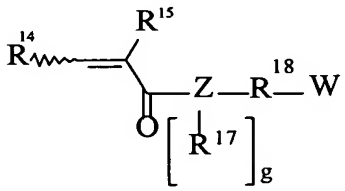
n is 0, 1 or 2, ~~and~~

W is / X^- or 

~~where the radicals~~ R^{16} ~~may be chosen~~ is selected to be identical or different from the group consisting of C_1-C_{40} linear- or branched-chain alkyl radicals, formyl, C_1-C_{10} linear- or branched-chain acyl, N,N-dimethylaminoethyl, 2-hydroxyethyl, 2-methoxyethyl, 2-ethoxyethyl, hydroxypropyl, methoxypropyl, ethoxypropyl ~~or~~ and benzyl, and ~~where~~

X^- is an anion,

b) N,N,N-trialkylaminoalkyl (meth)acrylates, ~~acrylates or methacrylates, N,N,N-trialkylaminoalkylacrylamides or methacrylamides of the~~ N,N,N-trialkylaminoalkyl(meth)acrylamides represented by formula (IV)



(IV)

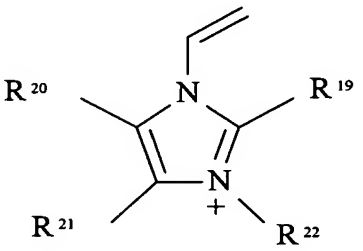
~~where R^{14}, R^{15} and W have the same meanings as in the formulae IIIa and IIIb in claim 3 a), and~~ wherein

R^{17} = hydrogen or methyl,

R^{18} = alkylene or hydroxyalkylene having 1 to 24 carbon atoms, and

Z = nitrogen when g = 1 or oxygen when g = 0,

c) quaternary N-vinylimidazoles ~~of the~~ represented by formula (V)



X^- (V)

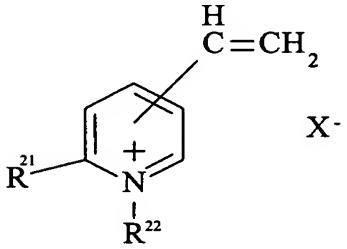
wherein ~~where~~

~~R^{19} to R^{21}, independently of one another,~~ R^{19}, R^{20} and R^{21} are independently selected from the group consisting of hydrogen, C_1-C_4-alkyl, C_1-C_4-hydroxyalkyl ~~or~~ and phenyl; ~~and~~

R^{22} is C_1-C_4-alkyl, C_1-C_4-hydroxyalkyl or phenyl; ~~and~~

and X^- is an anion,

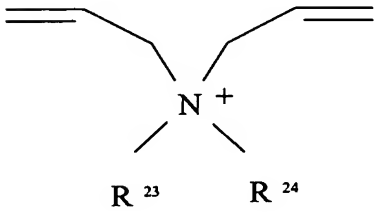
d) quaternary vinylpyridines ~~of the~~ represented by formula (VI) and



X^- (VI)

~~where R^{21}, R^{22} and X^- have the same meanings as in the formula (V) in claim 3 c),~~

e) quaternary diallylamines ~~of the~~ represented by formula (VII)



X^- (VII)

~~where~~ wherein R^{23} and R^{24} ~~in each case and independently of one another may be~~ are independently C_1– to C_{24}–alkyl. ~~C_1– to C_{24}–alkyl, and X is an anion.~~

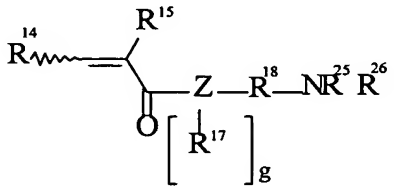
Claim 4 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein ~~any of claims 1 to 3, where~~ the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1) and/or the compound comprising quaternary nitrogen (a2') is ~~chosen~~ selected from the group consisting of N,N,N-trimethylaminomethyl (meth)acrylate, N,N,N-triethylaminomethyl (meth)acrylate, N,N,N-trimethylaminoethyl (meth)acrylate, N,N,N-triethylaminoethyl (meth)acrylate, N,N,N-trimethylaminobutyl (meth)acrylate, N,N,N-triethylaminobutyl (meth)acrylate, N,N,N-trimethylaminohexyl (meth)acrylate, N,N,N-trimethylaminooctyl (meth)acrylate, N,N,N-trimethylaminododecyl (meth)acrylate, N-[3-(trimethylamino)propyl]methacrylamide and N-[3-(trimethylamino)propyl]acrylamide, N-[3-(dimethylamino)butyl]methacrylamide, N-[8-(trimethylamino)octyl]methacrylamide, N-[12-(trimethylamino)dodecyl]methacrylamide, N-[3-(triethylamino)propyl]methacrylamide and N-[3-(triethylamino)propyl]acrylamide, (meth)acryloyloxyhydroxypropyltrimethylamine, (meth)acryloyloxyhydroxypropyltriethylamine, 3-methyl-1-vinylimidazole and N,N-dimethyl-N,N-diallylamine.

Claim 5 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein said polymerization vessel comprises a mixture of ~~any of claims 1 to 4, where the polymers are obtainable starting from mixtures~~ of 3-methyl-1-vinylimidazolium methylsulfate and N,N-dimethyl-N,N-diallylammonium chloride as ~~component~~ the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1).

Claim 6 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein the direct preproduct ~~any of claims 1 to 5, where the monomer~~ (a2) is ~~chosen~~ selected from the group consisting of free-radically polymerizable unsaturated primary, secondary and tertiary amines, unsaturated acids and unsaturated halides.

Claim 7 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein the direct preproduct ~~any of claims 1 to 6, where the monomer~~ (a2) is an amine ~~chosen~~ selected from the group ~~of compounds~~ consisting of

a) aminoalkyl acrylates, aminoalkyl methacrylates, aminoalkylacrylamides and aminoalkylmethacrylamides ~~of the~~ represented by formula (VIII)



(VIII)

~~where for R^{14} to R^{18} the definitions given for formula (IV) in claim 3 b) apply,~~

wherein

R^{14} and R^{15} are independently selected from the group consisting of hydrogen, C_1-C_8 linear- or branched-chain alkyl, methoxy, ethoxy, 2-hydroxyethoxy, 2-methoxyethoxy and 2-ethoxyethyl,

R^{16} is selected to be identical or different from the group consisting of C_1-C_{40} linear- or branched-chain alkyl radicals, formyl, C_1-C_{10} linear- or branched-chain acyl, N,N-dimethylaminoethyl, 2-hydroxyethyl, 2-methoxyethyl, 2-ethoxyethyl, hydroxypropyl, methoxypropyl, ethoxypropyl and benzyl,

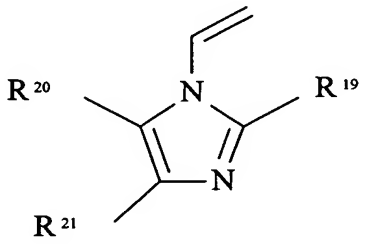
R^{17} is hydrogen or methyl,

R^{18} is alkylene or hydroxyalkylene having 1 to 24 carbon atoms,

and R^{25} and R^{26} are ~~in each case and~~ independently ~~of one another chosen~~ selected from the group consisting of hydrogen, C_1-C_{40} linear- or branched-chain alkyl, formyl, C_1-C_{10} linear- or branched-chain acyl, N,N-dimethylaminoethyl, 2-hydroxyethyl, 2-methoxyethyl, 2-ethoxyethyl, hydroxypropyl, methoxypropyl, ethoxypropyl ~~or~~ and benzyl,

b) N-vinylimidazoles ~~of the~~ represented by formula IX,

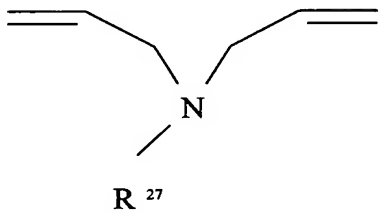
~~where for R^{19} to R^{21}, independently of one another, the definitions given for formula (V) in claim 3 c) apply,~~



(IX)

wherein R^{19}, R^{20} and R^{21} are independently selected from the group consisting of hydrogen, C_1-C_4-alkyl, C_1-C_4-hydroxyalkyl and phenyl;

c) diallylamines ~~of the~~ represented by formula (X)



(X)

~~where~~ wherein R^{27} = hydrogen or C_1– to C_{24}–alkyl,

d) ~~1,3-divinylimidazolid-2-one or~~ 1,3-divinylimidazolid-2-one, N-disubstituted vinylamines ~~of the~~ represented by formula (XI):

$$(R^{28})_2N\text{-}(CH_2)_n\text{-}CR^{15}=CHR^{14} \qquad (XI)$$

~~where R^{14}, R^{15} and n have the same meanings as in the formulae (IIIa) and (IIIb), and the radicals~~

wherein R^{28} ~~can be chosen~~ is selected from the group consisting of hydrogen C_1-C_{40} linear- or branched-chain alkyl radicals, formyl, C_1-C_{10} linear- or branched-chain acyl, N,N-

dimethylaminoethyl, 2-hydroxyethyl, 2-methoxyethyl, 2-ethoxyethyl, hydroxypropyl, methoxypropyl, ethoxypropyl ~~or~~ and benzyl, and ~~where,~~

when n=0, ~~both radicals~~ R^{28} are not both hydrogen at the same time.

Claim 8 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein the direct preproduct ~~any of claims 1 to 7, where the monomer~~ (a2) is ~~chosen~~ selected from the group consisting of N,N-dimethylaminoethyl methacrylate, N-[3-(dimethylamino)propyl]methacrylamide, N-methylaminoethyl methacrylate, N-[3-(methylamino)propyl]methacrylamide, aminoethyl methacrylate and N-[3-aminopropyl]methacrylamide, N-vinylimidazole, 1-vinyl-2-methylvinylimidazole and N,N-diallylamine.

Claim 9 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 6, wherein said conversion of the preproduct (a2) to the compound comprising quaternary nitrogen (a2') occurs in the presence of ~~any of claims 6 to 8, where the quaternization takes place with~~ an alkyl halide having 1 to 24 carbon atoms, a dialkyl sulfate having 1 to 24 carbon atoms, an alkylene oxide or an epichlorohydrin.

Claim 10 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 6, where the ~~monomer~~ preproduct (a2) is an unsaturated halide ~~chosen from~~ is selected from the group consisting of haloalkyl acrylates ~~or~~ and haloalkyl methacrylates.

Claim 11 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 10, ~~where the quaternization takes place with~~ wherein said conversion of the preproduct (a2) to

the compound comprising quaternary nitrogen (a2') occurs in the presence of a trialkylamine.

Claim 12 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in ~~any of claims 1 to 11, where~~ claim 1, wherein the one or more first additional free-radically polymerizable monomer (c) is ~~chosen~~ selected from the group consisting of N-vinyllactams, N-vinylcarboxamides, hydroxyalkyl acrylates, ethylenically unsaturated amides, vinylimidazoles, unsaturated acids and unsaturated amines.

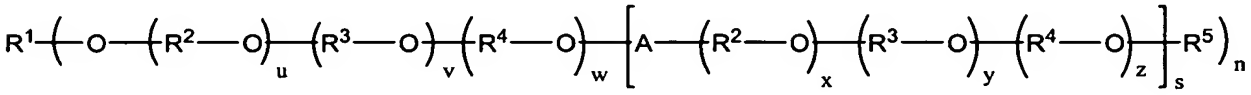
Claim 13 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in ~~any of claims 1 to 12, where~~ claim 1, wherein the one or more first additional free-radically polymerizable monomer (c) is ~~chosen~~ selected from the group consisting of N-vinylpyrrolidone, N-vinylpiperidone, N-vinylcaprolactam, N-vinylformamide, N–ethyl–N–vinylacetamide or N-methyl-N-vinylacetamide, 2-hydroxyethyl acrylate, 2-hydroxyethyl methacrylate, 2-hydroxypropyl methacrylate, butanediol monoacrylate, acrylamide, methacrylamide, N-vinylimidazole, acrylic acid, maleic acid, methacrylic acid, 2-acrylamido-2-methylpropanesulfonic acid, dimethylaminoethyl acrylate and dimethylamino methacrylate.

Claim 14 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in ~~any of claims 1 to 13, where~~ claim 1, wherein the one or more second additional free-radically polymerizable monomer (d) is ~~chosen~~ selected from the group consisting of C_1-C_{10}-alkyl esters of monoethylenically unsaturated C_3-C_6-carboxylic acids, di-C_1-C_{10}-alkyl esters of ethylenically unsaturated dicarboxylic acids, hydrocarbons having at least one free-radically polymerizable carbon-carbon double bond, vinyl, vinylidene or allyl halides, vinyl, allyl and methallyl esters of C_1-C_{40} linear, C_3-C_{40} branched-chain or C_3-C_{40} carbocyclic carboxylic acids of aliphatic, saturated and unsaturated nature, vinyl, allyl and methallyl ethers of linear

or branched, aliphatic alcohols having 2 to 20 carbon atoms.

Claim 15 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in ~~any of claims 1 to 14, where~~ claim 1, wherein the one or more second additional free-radically polymerizable monomer (d) is ~~chosen~~ selected from the group consisting of methyl acrylate, ethyl acrylate, propyl acrylate, n-butyl acrylate, isobutyl acrylate, t-butyl acrylate, 2-ethylhexyl acrylate, decyl acrylate, methyl methacrylate, ethyl methacrylate, propyl methacrylate, n-butyl methacrylate, isobutyl methacrylate, t-butyl methacrylate, 2-ethylhexyl methacrylate, decyl methacrylate, methyl ethacrylate, ethyl ethacrylate, n-butyl ethacrylate, isobutyl ethacrylate, t-butyl ethacrylate, 2-ethylhexyl ethacrylate, decyl ethacrylate, stearyl acrylate, stearyl (meth)acrylate, preferably styrene, alpha-methylstyrene, tert-butylstyrene, butadiene, isoprene, cyclohexadiene, ethylene, propylene, 1-butene, 2-butene, isobutylene, vinyltoluene, vinyl chloride, vinylidene chloride, allyl chloride, vinyl acetate, vinyl propionate, vinyl butyrate, vinyl valerate, vinyl hexanoate, vinyl 2-ethylhexanoate, vinyl decanoate, vinyl laurate, vinyl stearate, vinyl methyl ether, vinyl ethyl ether, vinyl dodecyl ether, vinyl hexadecyl ether, vinyl stearyl ether, acrylamidoglycolic acid, fumaric acid and crotonic acid.

Claim 16 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein the polyether-comprising ~~any of claims 1 to 15, where the polyether-containing~~ compound (b) is ~~described~~ represented by the formula I,



(I)

wherein ~~in which the variables, independently of one another, have the following meanings:~~

R^1 is independently selected from the group consisting of hydrogen, C_1–C_{24}–alkyl, R^6–C(=O)–, R^6–NH–C(=O)–, and polyalcohol radical;

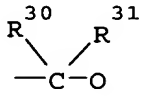
R^5 is independently selected from the group consisting of hydrogen, C_1–C_{24}–alkyl, R^6–C(=O)–, and R^6–NH–C(=O)–;

R^2 to R^4 are independently selected from the group consisting of $-(CH_2)_2-$, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(R^6)-$, and $-CH_2-CHOR^7-CH_2-$;

R^6 is C_1–C_{24}–alkyl;

R^7 is independently selected from the group consisting of hydrogen, C_1–C_{24}–alkyl, R^6–C(=O)–, and R^6–NH–C(=O)–;

A is selected from the group consisting of –C(=O)–O, –C(=O)–B–C(=O)–O, -CH_2-CH(-OH)-B-CH(-OH)-CH_2-O, ~~–C(=O)–NH–B–NH–C(=O)–O;~~ –C(=O)–NH–B–NH–C(=O)–O, and



;

B is selected from the group consisting of $-(CH_2)_t-$, substituted arylene and unsubstituted arylene~~, optionally substituted~~;

R^{30}, R^{31} are independently selected from the group consisting of hydrogen, C_1-C_{24}-alkyl, C_1-C_{24}-hydroxyalkyl, benzyl ~~or~~ and phenyl;

n is 1 when R^1 is not a polyalcohol radical or

n is 1 to 1 000 when R^1 is a polyalcohol radical

s is 0 to 1 000;

t is 1 to 12;

u is 1 to 5 000;

v is 0 to 5 000;

w is 0 to 5 000;

x is 0 to 5 000;

y is 0 to 5 000; and

z is 0 to 5 000.

Claim 17 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in ~~any of claims 1 to 16, where the polyether-containing~~ claim 16, wherein the polyether-comprising compound (b) ~~described by the formula I~~ has an average molecular weight of from 500 to 50 000 (number-average) ~~and the variables, independently of one another, have the following meanings:~~

R^1 is independently selected from the group consisting of hydrogen, C_1–C_6–alkyl, R^6–C(=O)–, and R^6–NH–C(=O)–;

R^5 is independently selected from the group consisting of hydrogen, C_1–C_6–alkyl, R^6–C(=O)–, and R^6–NH–C(=O)–;

R^2 to R^4 are $-(CH_2)_2-$, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(R^6)-$, and $-CH_2-CHOR^7-CH_2-$;

R^6 is C_1–C_6–alkyl;

R^7 is independently selected from the group consisting of hydrogen, C_1–C_6–alkyl, R^6–C(=O)–, and R^6–NH–C(=O)–;

n is 1;

s is 0;

u is 5 to 500;

v is 0 to 500; and

w is 0 to 500.

Claim 18 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein the polyether-comprising ~~any of claims 1 to 17, where the polyether-containing~~ compound (b) is a polymer, copolymer or block copolymer of at least one compound ~~chosen~~ selected from the group consisting of ethylene oxide and propylene oxide.

Claim 19 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in claim 1, wherein the polyether-comprising ~~any of claims 1 to 15, where the polyether-containing~~ compound (b) is a ~~polyether-containing~~ polyether-comprising silicone derivative.

Claim 20 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in ~~any of claims 1 to 15, where the polyether-containing~~ claim 1, wherein the polyether-comprising compound (b) is obtained by reacting polyethyleneimines with alkylene oxides.

Claim 21 (Currently Amended): The ~~use~~ cosmetic preparation as claimed in ~~any of claims 1 to 15, where the polyether-containing~~ claim 1, wherein the polyether-comprising compound (b) ~~are obtainable by polymerization of~~ is obtained by polymerizing ethylenically unsaturated alkylene ~~oxide-containing~~ oxide-comprising monomers and optionally at least one additional ~~further~~ copolymerizable monomer. ~~monomers.~~

Claim 22 (Currently Amended): The ~~use of polymers~~ cosmetic preparation as claimed in claim 1, wherein ~~any of claims 1 to 21, where the quantitative ratios are as follows:~~

~~a1) 3 30% by weight~~

~~b) 70 97% by weight~~

~~c) 0 15% by weight~~

~~d) 0 15% by weight~~

~~and~~ the percentages by weight of the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1), the at least one polyether-comprising compound (b), the one or more first additional free-radically polymerizable monomer (c) and the one or more second additional free-radically polymerizable monomer (d) ~~the individual components a1, b and optionally c and d~~ add up ~~in each case~~ to 100% by weight.

Claim 23 (Currently Amended): The ~~use of the polymers~~ cosmetic preparation as claimed in claim 1, wherein ~~any of claims 1 to 22, where the quantitative ratios are as follows:~~

the at least one quaternary nitrogen-comprising free-radically polymerizable monomer a1) is present from 4 – 12% by weight

the at least one polyether-comprising compound b) is present from 88 – 96% by weight

the one or more first additional free-radically polymerizable monomer c) is present from 0% by weight

the one or more second additional free-radically polymerizable monomer d) is present from 0% by weight

and the percentages by weight of ~~the individual components a1 and b~~ the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1) and the at least one polyether-comprising compound (b) add up ~~in each case~~ to 100% by weight.

Claim 24 (Currently Amended): A cationic polymer produced by the process comprising: ~~obtainable by polymerization of~~

polymerizing in a polymerization vessel

from 3 to 30% by weight of at least one cationic, quaternary, free-radically polymerizable monomer (a1)

in the presence of

from 70 to 97% by weight of at least one ~~polyether-containing~~ polyether-comprising compound (b) ~~and optionally~~

from 0 to 15% by weight of one or more first additional ~~further~~ free-radically polymerizable ~~monomers~~ monomer (c) ~~with~~ having a solubility in water above 60 g/l at 25°C and ~~optionally~~

from 0 to 15% by weight of one or more ~~further~~ second additional free-radically polymerizable ~~monomers~~ monomer (d) ~~with~~ having a solubility in water below 60 g/l at 25°C,

~~where~~ wherein the molar ratio of the sum of the ~~monomers~~ at least one cationic, quaternary, free-radically polymerizable monomer (a1) and the one or more further free-radically polymerizable monomer (c) to the sum of the one or more second additional free-radically polymerizable ~~monomers~~ monomer (d) is at least 2 to 1,

~~where~~ the water content in the reaction mixture during the polymerization is less than 20% by weight, and

~~where~~ the percentages by weight of the at least one cationic, quaternary, free-radically polymerizable monomer (a1), at least one polyether-comprising compound (b), the one or more further free-radically polymerizable monomer (c) and the one or more second additional free-radically polymerizable monomer (d) ~~individual components a1, b and optionally c and d~~

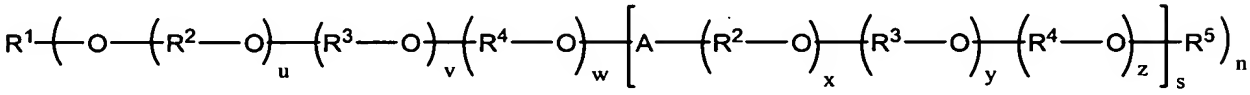
add up ~~in each case~~ to 100% by weight.

Claim 25 (Currently Amended): A cationic polymer as claimed in claim 24, wherein ~~where~~

(i) the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1) is selected from the group consisting of quaternary vinylamines, N,N,N-trialkylaminoalkyl acrylates and methacrylates, N,N,N-trialkylaminoalkylacrylamides and -methacrylamides, 3-alkyl-1-vinylimidazoles, 3-aryl-1-vinylimidazoles, quaternary vinylpyridines and quaternary diallylamines, the salts thereof and mixtures thereof.

~~monomers (a1) are defined as in any of claims 2 to 5~~

(ii) the polyether-comprising compound (b) is represented by formula I,



(I)

wherein

R^1 is independently selected from the group consisting of hydrogen, C_1–C_{24}–alkyl, R^6–C(=O)–, R^6–NH–C(=O)–, and polyalcohol radical;

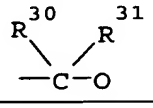
R^5 is independently selected from the group consisting of hydrogen, C_1–C_{24}–alkyl, R^6–C(=O)–, and R^6–NH–C(=O)–;

R^2 to R^4 are independently selected from the group consisting of $-(CH_2)_2-$, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(R^6)-$, and $-CH_2-CHOR^7-CH_2-$;

R^6 is C_1–C_{24}–alkyl;

R^7 is independently selected from the group consisting of hydrogen, C_1–C_{24}–alkyl, R^6–C(=O)–, and R^6–NH–C(=O)–;

A is selected from the group consisting of –C(=O)–O, –C(=O)–B–C(=O)–O, -CH_2-CH(-OH)-B-CH(-OH)-CH_2-O, –C(=O)–NH–B–NH–C(=O)–O; and



;

B is selected from the group consisting of –$(CH_2)_t$–, substituted arylene and unsubstituted arylene~~, optionally substituted~~;

R^{30}, R^{31} are independently selected from the group consisting of hydrogen, C_1-C_{24}-alkyl, C_1-C_{24}-hydroxyalkyl, benzyl ~~or~~ and phenyl;

n is 1 when R^1 is not a polyalcohol radical or

n is 1 to 1 000 when R^1 is a polyalcohol radical

s is 0 to 1 000;

t is 1 to 12;

u is 1 to 5 000;

v is 0 to 5 000;

w is 0 to 5 000;

x is 0 to 5 000;

y is 0 to 5 000; and

z is 0 to 5 000; or

the polyether-comprising compound (b) is a polyether-comprising silicone derivative; or

the polyether-comprising compound (b) is obtained by reacting polyethyleneimines with alkylene oxides; or

the polyether-comprising compound (b) is obtained by polymerizing ethylenically unsaturated alkylene oxide-comprising monomers and optionally at least one additional copolmerizable monomer;

~~polyether-containing compound (b) is defined as in any of claims 16 to 21,~~

iii) the one or more first additional free-radically polymerizable ~~monomers~~ monomer (c) is selected from the group consisting of N-vinyllactams, N-vinylcarboxamides, hydroxyalkyl acrylates, ethylenically unsaturated amides, vinylimidazoles, unsaturated acids and unsaturated amines; and ~~are defined as in either claim 12 or 13, and/or~~

iv) the one or more second additional free-radically polymerizable monomer (d) is selected from the group consisting of C_1-C_{10}-alkyl esters of monoethylenically unsaturated C_3-C_6-carboxylic acids, di-C_1-C_{10}-alkyl esters of ethylenically unsaturated dicarboxylic acids, hydrocarbons having at least one free-radically polymerizable carbon-carbon double bond, vinyl, vinylidene or allyl halides, vinyl, allyl and methallyl esters of C_1-C_{40} linear, C_3-C_{40} branched-chain or C_3-C_{40} carbocyclic carboxylic acids of aliphatic, saturated and unsaturated nature, vinyl, allyl and methallyl ethers of linear or branched, aliphatic alcohols having 2 to 20 carbon atoms.

~~the monomers (d) are defined as in either claim 14 or 15.~~

Claim 26 (Currently Amended): A cationic polymer as claimed in claim 24, wherein the percentages by weight of the at least one quaternary nitrogen-comprising free-radically polymerizable monomer (a1), the at least one polyether-comprising compound (b), the one or more first additional free-radically polymerizable monomer (c) and the one or more second additional free-radically polymerizable monomer (d) add up to 100% by weight. ~~either claim 24 or 25, where the composition of the polymer is defined as in either of claims 22 and 23.~~

Claim 27 (Currently Amended): A process for the preparation of cationic polymers as claimed in claim 24, the process comprising: ~~any of claims 24 to 26, which comprises~~

polymerizing

from 3 to 30% by weight of at least one cationic, quaternary free-radically polymerizable monomer (a1)

in the presence of

from 70 to 97% by weight of at least one ~~polyether-containing~~ polyether-comprising compound (b) ~~and optionally~~

from 0 to 15% by weight of one or more ~~further~~ first additional free-radically polymerizable monomer ~~monomers~~ (c) ~~with~~ having a solubility in water of more than 60 g/l at 25°C and optionally

from 0 to 15% by weight of one or more ~~further~~ second additional free-radically polymerizable monomer ~~monomers~~ (d) ~~with~~ having a solubility in water of less than 60 g/l at 25°C,

~~where~~ wherein the molar ratio of the sum of the at least one cationic, quaternary free-radically polymerizable monomer ~~monomers~~ (a1) and the one or more first additional free-radically polymerizable monomer (c) to the sum of the one or more second additional free-radically polymerizable monomer ~~monomers~~ (d) is at least 2 to 1,

~~where~~ the water content in the reaction mixture during the polymerization is less than 20% by weight, and

~~where~~ the percentages by weight of the at least one cationic, quaternary free-radically polymerizable monomer(a1), the at least one polyether-comprising compound (b), the one or more first additional free-radically polymerizable monomer (c), and the one or more second additional free-radically polymerizable monomer (d) ~~individual components a1, b and optionally c and d~~ add up ~~in each case~~ to 100% by weight.

Claim 28 (Currently Amended): A hair cosmetic formulation comprising: ~~with the following composition:~~

a) 0.05 – 20% by weight of the cosmetic preparation as claimed in claim 1, ~~a cationic polymer corresponding to any of claims 1 to 26~~

b) 20 – 99.95% by weight of water and/or alcohol and

c) 0 – 79.05% by weight of ~~further~~ additional constituents.

Claim 29 (Currently Amended): A hair cosmetic formulation comprising: ~~with the following composition:~~

a) 0.1 – 10% by weight of the cosmetic preparation as claimed in claim 1, ~~a cationic polymer as claimed in any of claims 1 to 26~~

b) 20 – 99.9% by weight of water and/or alcohol

c) 0 – 70% by weight of a propellant and

d) 0 – 20% by weight of ~~further~~ additional constituents.

Claim 30 (Currently Amended): A hair cosmetic formulation comprising: ~~with the following composition:~~

a) 0.1 – 10% by weight of the cosmetic preparation as claimed in claim 1, ~~a cationic polymer as claimed in any of claims 1 to 26~~

b) 55 – 94.8% by weight of water and/or alcohol

c) 5 - 20% by weight of a propellant

d) 0.1 - 5% by weight of an emulsifier and

e) 0 – 10% by weight of ~~further~~ additional constituents.

Claim 31 (Currently Amended): A hair cosmetic formulation comprising: ~~of the following composition:~~

a) 0.1 – 10% by weight of the cosmetic preparation as claimed in claim 1, ~~a cationic polymer as claimed in any of claims 1 to 26~~

b) 60 – 99.85% by weight of water and/or alcohol

c) 0.05 – 10% by weight of a gel former and

d) 0 – 20% by weight of ~~further~~ additional constituents.

Claim 32 (Currently Amended): A hair cosmetic formulation comprising: ~~with the following composition:~~

a) 0.05 – 10% by weight of the cosmetic preparation as claimed in claim 1, ~~a cationic polymer as claimed in any of claims 1 to 26,~~

b) 25 – 94.95% by weight of water

c) 5 – 50% by weight of surfactants

d) 0 – 5% by weight of a ~~further~~ conditioning agent and

e) 0 – 10% by weight of ~~further~~ additional cosmetic constituents.